City of Lafayette Staff Report

For:	City Council
By:	Niroop K. Srivatsa
Date Written:	September 5, 2008
Meeting Date:	September 8, 2008
Subject:	**Palos Colorados Precise Development Plan: Review of the photo simulations submitted by Richfield Investment Corporation**

Purpose

To evaluate the visual impacts of the proposed houses in the Palos Colorados project as viewed from the Lafayette BART station.

Background

In 2007, when the General Development Plan for the Palos Coloradis project was under review, Lafayette entered into a settlement agreement with the Town of Moraga and Richfield Development Corporation. Exhibit C of that agreement listed the following conditions relating to the visual impacts of the project:

> GDP.2. The maximum building height for General Development Plan Lots 13, 14, 15 and 16 shall be 19 feet provided that the elevation of the lots is between 706 and 712 feet. If the elevation of the lots is lowered then the building height can increase equal to the lowering of the lots. The maximum building height for General Development plan Lot 83 shall be 19 feet provided that the elevation of the lot is 780 feet. If the elevation of the lot is lowered, then the building height can increase equal to the lowering of the lot. The maximum building height for General Development Plan Lot 106 shall be 19 feet provided that the elevation of the lot is 748 feet. If the elevation of the lot is lowered, then the building height can increase equal to the lowering of the lot. At the design review stage, story poles shall be installed by the applicant on Lot 106 to evaluate visual impact from the Lafayette BART station. If the proposed residence is visible from the Lafayette BART station, modifications to the design shall be required to fully mitigate the visual impact or screening landscaping shall be installed to eliminate the impact.
>
> Condition 3 for Conditional Use Permits for Lots 22, 23, F and G which establish the Site Development Standards for the construction of single-family residences on Lots 22, 23, F and G in the Palos Colorados subdivision: The following Site Development Standards shall be adhered to: Maximum Building Height: 19 feet (one story) unless it can be demonstrated to the satisfaction of the Town of Moraga that a higher building height (up to a maximum of 25 feet) is not visible from the Lafayette BART station

The General Development Plan (GDP) was subsequently approved and contained the following conditions of approval:

> C.VTM.37 The Precise Development Plan Submittals shall demonstrate that the rooflines of homes on Lots 22 through 27, E, F, G and 29 do not protrude above the elevations of the existing skyline behind them as viewed from the platform of the Lafayette BART Station. The detailed Precise Development Plan and guidelines provide the means by which to eliminate potential visual impacts of the proposed residential structures as viewed from the platform of the Lafayette BART Station. In order to meet this requirement, each lot shall have a home elevation limit of one story and each home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.
>
> C.GDP.2-R-VTM. Prior to approval of the Precise Development Plan (PDP) and subsequent design review applications, the Applicant shall demonstrate compliance with the limitations on building height set forth in this condition. The maximum building height for General Development Plan Lots 13, 14, 15 and 16 shall be 19 feet provided that the elevation of the lots is between 706 and 712 feet. If the elevation of the lots is lowered, then the building height can increase equal to the lowering of the lots. The maximum building height for General Development Plan lot 83 shall be 19 feet provided that the elevation of the lot is 780 feet. If the elevation of the lot is lowered, then the building height can increase equal to the lowering of the lot. The maximum building height for General Development Plan lot 106 shall be 19 feet provided that the elevation of the lot is 748 feet. If the elevation of the lot is lowered, then the building height can increase equal to the lowering of the lot. At the design review stage, story poles shall be installed by the Applicant on lot 106 to evaluate visual impact from the Lafayette BART station. If the proposed residence is visible from the Lafayette BART station, modifications to the design shall be required to fully mitigate the visual impact or screening landscaping shall be installed to eliminate the impact. The maximum building height for lots 22, 23, F and G shall be 19 feet (one story) unless it can be demonstrated that a higher building (up to a maximum of 25 feet) is not visible from the Lafayette BART Station Platform.

Richfield Investment Corporation, developers of the Palos Colorados project, has submitted an application for Precise Development Plan approval to the Town of Moraga. This is the last of the three-phased planned unit development process in Moraga. To develop the photosimulations, Richfield's engineers installed storey poles on these lots. It is unfortunate that Lafayette was not informed when the storey poles were installed.

To determine whether the plans met the conditions in the settlement agreement and GDP, staff retained Bob Staehle, the visual consultant hired by Lafayette in 2006 during the settlement agreement negotiations to analyze the recent submittals.

Analysis

The attached table lists the lots specified in the settlement agreement and GDP and evaluates the visual impacts of the proposed homes on those lots as viewed from the Lafayette BART station. The findings are:

1. The houses on nine of the lots (2007 Lot #s 22, 23, F, 24, 25, 26, 27, 29, E) will break the horizon and therefore do not meet the requirement of the GDP that "the rooflines of homes do not protrude above the elevations of the existing skyline behind them as viewed from the platform of the Lafayette BART Station."

Recommendation: Staff recommends that these lots be graded to a lower elevation to prevent the rooflines from breaking the horizon.

2. One lot - Lot 106 - is visible from the BART station. This lot was also cited in 2007 as being the most visible lot.

   Recommendation: Staff recommends that the lot be relocated away from the view corridor. If that is not possible, storey poles must be installed on Lot 106 during the design review stage to analyze and fully mitigate the visual impacts.

Recommendation

Authorize staff to forward comments to the Moraga Planning Commission.

Attachments

1. Lot analysis table
2. Staehle evaluation: graphics
3. Documents submitted by Richfield Development Corporation

Lot # (2006)	Lot # and Elevation (2008)	Settlement Agreement Requirement	General Development Plan Requirement	Staehle Verification
13*	12 706'	Maximum height: 19' Elevation: between 706 and 712 feet	Maximum height: 19' Elevation: between 706 and 712 feet	Roof and walls visible. Does not break horizon. Unknown if the unit is obstructed by background vegetation. It is obstructed by foreground vegetation. Lot meets the condition of approval.
14*	13 708'	Maximum height: 19' Elevation: between 706 and 712 feet	Maximum height: 19' Elevation: between 706 and 712 feet	Roof and walls visible. Does not break horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. Lot meets the condition of approval.
15*	14 710'	Maximum height: 19' Elevation: between 706 and 712 feet	Maximum height: 19' Elevation: between 706 and 712 feet	Roof and walls visible. Does not break horizon. The unit is obstructed by background vegetation. It is also obstructed by foreground vegetation. Lot meets the condition of approval.
16*	15 712'	Maximum height: 19' Elevation: between 706 and 712 feet	Maximum height: 19' Elevation: between 706 and 712 feet	Roof and walls visible. Does not break horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. Lot meets the condition of approval.
83*	83 768.8'	Maximum height: 19' Elevation: 780 feet	Maximum height: 19' Elevation: 780 feet	Roof is visible. Unit does break the horizon. Unit is obstructed by both the background vegetation but not the foreground vegetation.

Lot # (2006)	Lot # and Elevation (2008)	Settlement Agreement Requirement	General Development Plan Requirement	Staehle Verification
				Lot meets the condition of approval.
106	106 748'	At design review stage, install storey poles to evaluate visual impacts from Lafayette BART station. If house is visible, modify design to fully mitigate visual impact or add screening landscaping to eliminate the impact.	Maximum height: 19' Elevation: 748 feet At design review stage, install storey poles to evaluate visual impacts from Lafayette BART station. If house is visible, modify design to fully mitigate visual impact or add screening landscaping to eliminate the impact.	Entire unit is visible. It does not break the horizon and is not obstructed by either foreground or background vegetation. Lot does not meet the condition of approval. Recommend relocation of the lot. Alternately, recommend that at design review stage, storey poles be installed to evaluate ad fully mitigate visual impacts from Lafayette BART station.
22	16 754'	Maximum height: 19' (one storey) unless it can be demonstrated to the Town of Moraga that a higher building height up to a maximum of 25' is not visible from the Lafayette BART station.	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit. Maximum height: 19' (one storey) unless it can be demonstrated to the Town of Moraga that a higher building height up to a maximum of 25' is not visible from the Lafayette BART station.	Roof and walls visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.

Lot # (2006)	Lot # and Elevation (2008)	Settlement Agreement Requirement	General Development Plan Requirement	Staehle Verification
23	17 758'	Maximum height: 19' (one storey) unless it can be demonstrated to the Town of Moraga that a higher building height up to a maximum of 25' is not visible from the Lafayette BART station.	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit. Maximum height: 19' (one storey) unless it can be demonstrated to the Town of Moraga that a higher building height up to a maximum of 25' is not visible from the Lafayette BART station.	Roof and walls visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.
F	24 756'	Maximum height: 19' (one storey) unless it can be demonstrated to the Town of Moraga that a higher bui8lding height up to a maximum of 25' is not visible from the Lafayette BART station.	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.	Roof and walls visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.
G	n/a	Maximum height: 19' (one storey) unless it can be demonstrated to the Town of	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the	No unit at this location.

Lot # (2006)	Lot # and Elevation (2008)	Settlement Agreement Requirement	General Development Plan Requirement	Staehle Verification
		Moraga that a higher bui8lding height up to a maximum of 25' is not visible from the Lafayette BART station.	Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit. Maximum height: 19' (one storey) unless it can be demonstrated to the Town of Moraga that a higher building height up to a maximum of 25' is not visible from the Lafayette BART station.	
24	18 758'	None	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.	Roof and walls visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.
25	20 754'	None	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from	Roof and walls visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not

Lot # (2006)	Lot # and Elevation (2008)	Settlement Agreement Requirement	General Development Plan Requirement	Staehle Verification
			the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.	meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.
26	21 751.5'	None	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.	Roof is visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.
27	22 748'	None	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.	Roof is visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.
29	25 774'	None	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall	Roof is visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation.

Lot # (2006)	Lot # and Elevation (2008)	Settlement Agreement Requirement	General Development Plan Requirement	Staehle Verification
			not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.	By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.
E	23 751.7'	None	The roofline must not protrude above the elevations of the existing skyline behind the house as viewed from the platform of the Lafayette BART Station. Lot to have a home elevation limit of one story and home shall not exceed 19 feet or 25 feet in height from the approved subdivision lot grade to the highest point of the roofline, excepting chimneys in accordance with the Conditional Use Permit.	Roof and walls visible. Unit does break the horizon. The unit is obstructed by background vegetation. It is not obstructed by foreground vegetation. By breaking the horizon, lot does not meet the condition of approval. Recommend that the lot be graded down to a lower elevation to prevent the roofline from breaking the horizon.

*: If the elevation of the lot is lowered, then the building height can increase equal to the lowering of the lot.

Richfield Investment

RECEIVED
AUG 04 2008
CITY OF LAFAYETTE
PLANNING DEPT.

July 30, 2008

Ms. Lori Salamack
Planning Director
Town of Moraga
329 Rheem Blvd., Suite 2
Moraga, CA 94556

RE: On-going Lafayette BART Station Viewshed Analysis

Dear Ms. Salamack,

In order to satisfy the Vesting Tentative Map (VTM) on-going Condition A.GDPSA.1-R-VTM, and to confirm the status of Conditions C.VTM.37 and C.GDP.2-R-VTM in conjunction with the Precise Development Plan (PDP), Richfield's design team performed updated analysis and visual simulations of homes proposed for GDP/VTM Lots 22 through 27, E, F, G & 29 as viewed from the Lafayette BART Station platform.

Enclosed please find the following documents containing the results of our analysis:

1. Document of Methodology prepared by Dahlin Group Digital Imaging Studio describing the methodology used to prepare the visual simulations
2. View 1.1 Aerial View Legend
3. View 1.2a Photograph of existing condition from Lafayette BART station platform
4. View 1.2b Photograph of existing condition from Lafayette BART station platform after installation of story poles at Lot 106
5. View 1.3a Visual simulation of the 4/22/08 PDP, prepared by DK Consulting and Robert Hidey Architects
6. View 1.3b Visual Simulation of the viewshed mitigation with mature landscaping
7. Viewshed Exhibit key map showing the lots subject to the analysis, and the adjusted lot numbers
8. View 1 Viewshed Analysis tabulation comparing the pad elevations, building height used for the lots subject to the viewshed analysis in the 1999 Settlement Agreement Exhibit 1, the Dec.15, 2006 GDP/VTM, and the current 2008 PDP. The adjusted lot numbers are cross-referenced in this tabulation.
9. Certification of story-poles installation on Lot 106, prepared by DK Consulting

A set of the last General Development Plan (GDP) visual simulations, dated December 15, 2006, is also enclosed for your reference.

The visual simulations were generated based on the latest Precise Development Plan (PDP) engineering design prepared by DK Consulting and semi-custom home plans deigned by Robert Hidey Architects. The refined building pad elevations match closely to the approved VTM elevations. A 19-foot one-story building height is used for PDP Lots 16 through 25 (GDP/VTM Lots 22 through 27, E, F, G and 29) according to the requirements in the Condition.

10001 Westheimer Road, Suite 2888
Houston, Texas 77042
Phone: 713.975.6288
Fax: 713.975.6289 / 713.975.1002

The visual simulations demonstrate that the Precise Development Plan (PDP) does not result in any new significant or substantially more severe impacts to views from the Lafayette BART station platform. The analysis also confirms the PDP to be consistent with the results from the Dec.15, 2006 GDP analysis. The following summarizes the results of our analysis:

1. The homes to be constructed on PDP Lots 16 through 25 (GDP/VTM Lots 22 through 27, E, F, G and 29) are not visible to the naked human eye as viewed from the Lafayette BART station platform.

2. Due to the distance, story poles installed on Lot 106 are not visible to the naked human eye as viewed from the Lafayette BART station platform.

3. The computer-generated structure on Lots 106 and 107, although visible, is consistent with the GDP analysis results. Screening landscaping shall be installed to fully mitigate the visual impact to comply with the requirements in Condition C.GDP.2-R-VTM.

We believe the updated analysis, visual simulations and proposed mitigation satisfy the VTM conditions.

Sincerely,
Richfield Investment

Ricardo Sabella
President

RS:dc

cc: Niroop Srivatsa (City of Lafayette)
Alicia Guerra (Cox Castle Nicholson)
Debi Chung (Richfield)
Grace Chen (Richfield)
David Francke (DK Consulting)
Bryan Moser (Digital Imaging Studio)

DAHLIN GROUP
ARCHITECTURE
PLANNING

July 30, 2008

Document of Methodology

Visual Simulation Study for

RICHFIELD INVESTMENT CORPORATION

PALOS COLORADOS

Project in Moraga, California

Company Profile:

The 2008 Photo Composites were prepared by Digital Imaging Studio (DIS), Dahlin Group. DIS specializes in creating Photo Composites, Renderings and Animations for architectural and planning projects. The San Francisco team has served architects, developers, homebuilders and institutions since January 2000. www.disstudio.com

Methodology:

DIS prepared computer generated Photo Composites to simulate proposed views from the Lafayette BART Station at the same location previously simulated in December of 2006. Digital photographs were taken using a 50mm film-equivalent lens (viewing angle of approximately 40 degrees as shown in the attached photographs dated May 29th, 2008).

These simulations were created using a combination of existing site photography and proposed computer-generated models using some of the processes and standard tools listed below:

A. Site photographs taken using a 35mm single lens reflex (SLR) lens with a digital camera (FUJIFILM FinePixS2Pro digital camera)

B. Input of computer-generated site, both Existing and Proposed Conditions from Civil Engineer's drawings (Autodesk AutoCAD 2005 software)

C. Camera matching of existing photo to existing site, using grading model for reference (Autodesk 3ds Max 2008 software)

D. Input of computer generated houses from Architect's drawings (Autodesk 3ds Max 2008 software)

E. Creation of computer-generated landscaping from Landscape Architect's drawings (Autodesk 3ds Max 2008 software)

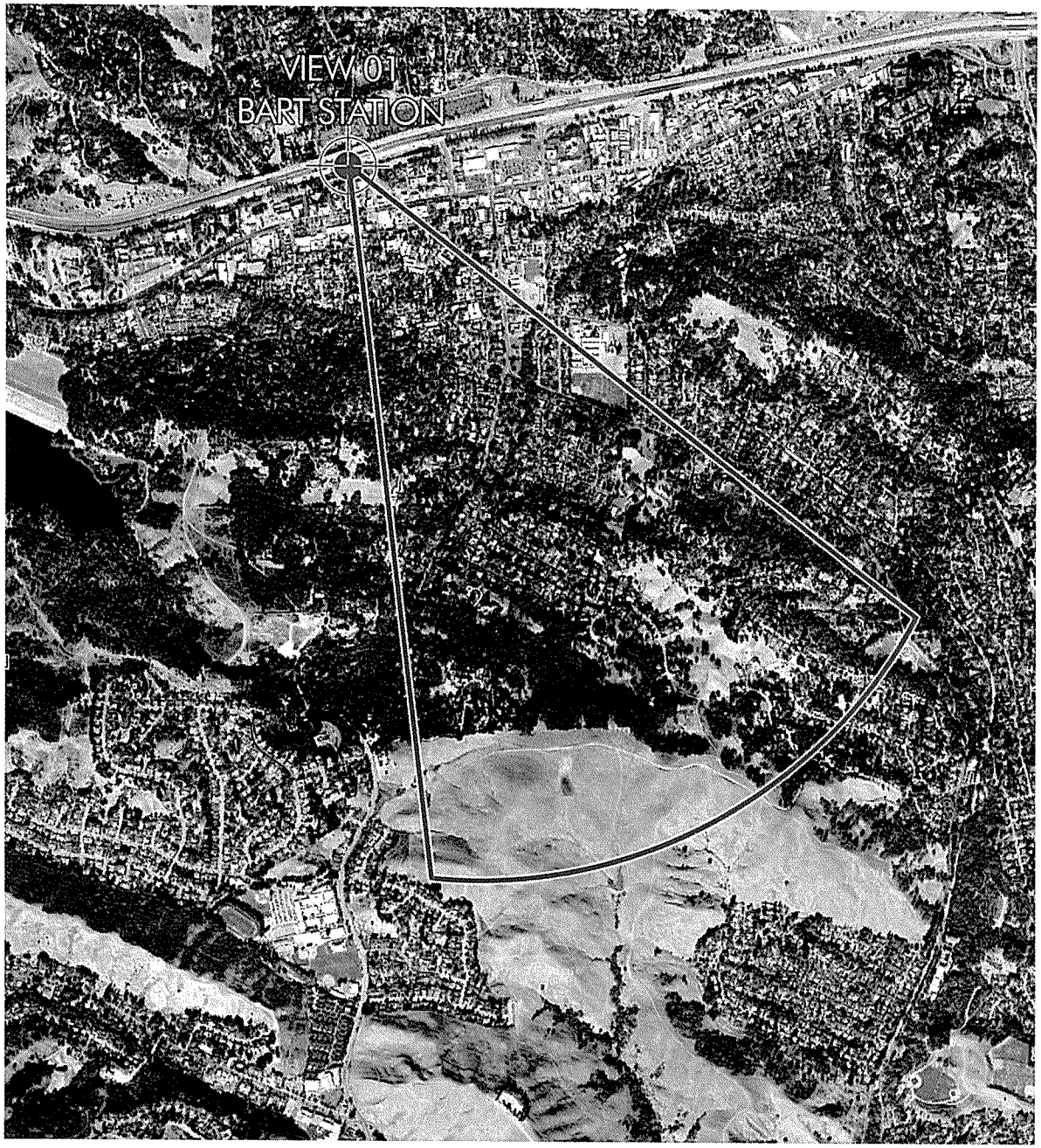
F. Photo Editing of computer-simulated view overlaid onto real site photographs (Adobe Photoshop CS2 software)

G. Conduct Review with team's professional consultants (e.g. architect, engineer)

The camera location was digitally located using USGS topographic maps and placed at a standard eye level of 5'-0" above ground level. The camera field-of-view (40 deg.) was set, and then both wire frame and shaded perspective views of the existing site computer model were composited to determine the exact direction of the camera. Once this view was established, the proposed site, houses, and landscaping were rendered out and composited to produce the final rendering.

Digital Imaging Studio
101 Townsend Street, #209
San Francisco, CA 94107
www.dahlingroup.com

415.538.0933
f 415.512.1313



VIEW 1.1
Aerial View Legend
July 30, 2008

Richfield Investment Corporation
Digital Imaging Studio

Visual Simulation
Palos Colorados
Moraga, California

VIEW 1.2a
Photograph of existing conditions
from the Lafayette BART station platform (taken on 5/29/08)
July 30, 2008

Richfield Investment Corporation
Digital Imaging Studio

Visual Simulation
Palos Colorados
Moraga, California

VIEW 1.2b

Photograph of existing conditions (after Lot 106 Story Poles) from the Lafayette BART station platform (taken on 5/29/08)

July 30, 2008

Richfield Investment Corporation

Digital Imaging Studio

Visual Simulation

Palos Colorados

Moraga, California

VIEW 1.3a
Visual simulation of the 4/22/08 PDP
July 30, 2008

Richfield Investment Corporation
Digital Imaging Studio

Visual Simulation
Palos Colorados
Moraga, California

VIEW 1.3b

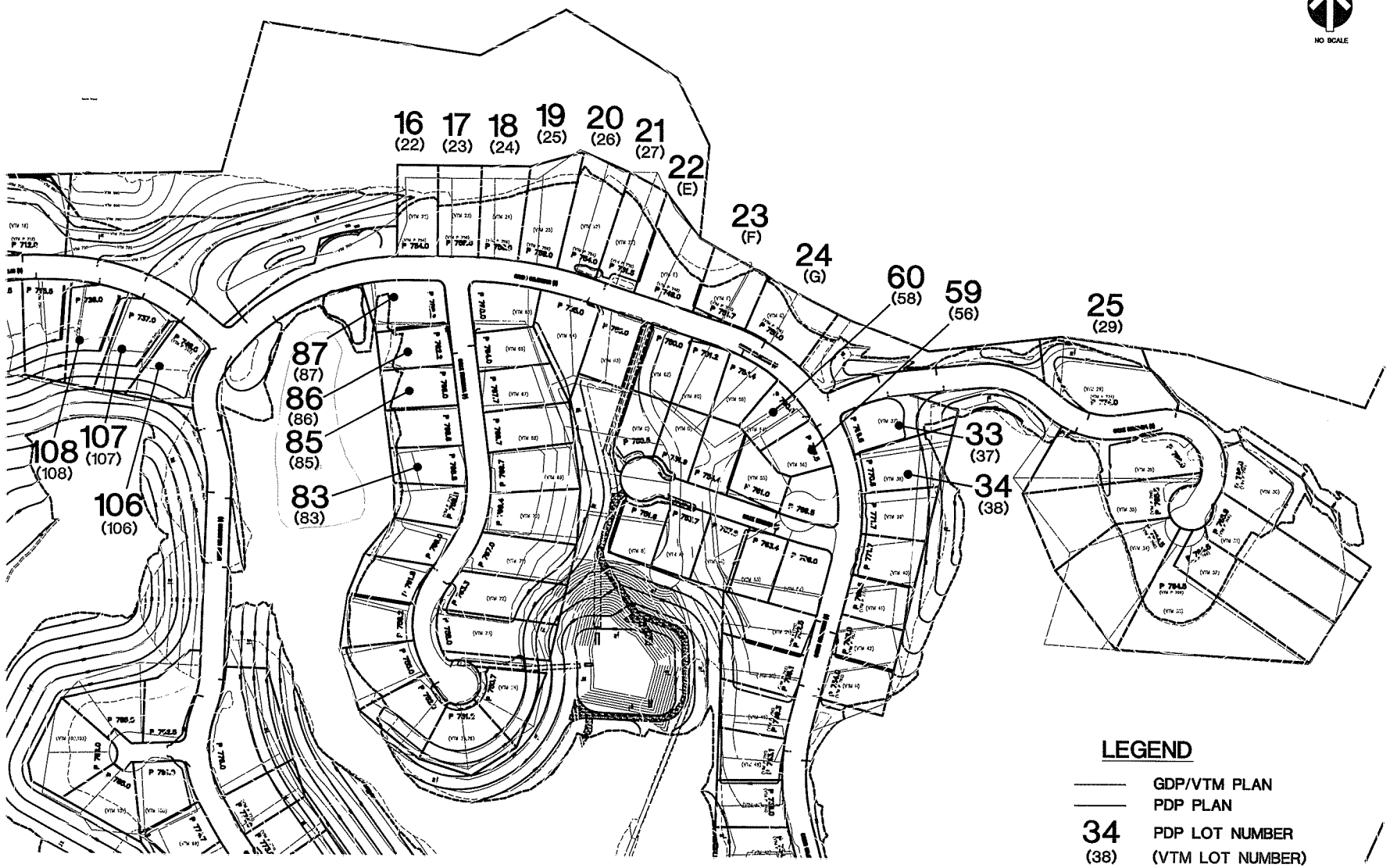
Visual simulation of the 4/22/08 PDP
with Mature Landscaping Mitigation
July 30, 2008

Richfield Investment Corporation

Digital Imaging Studio

Visual Simulation

Palos Colorados
Moraga, California



LAFAYETTE BART STATION VIEWSHED EXHIBIT

EXP. DATE 9-30-08

Property of dk Consulting DO NOT REPRODUCE
Additional information including Property Lines, Ownership, Acreage, Topography, etc. Covering this area is available from dk Consulting

DRAWING DATE: JULY 2008

F:\PROJECTS\2007\071012\DWG\GP-PV\EXHIBITS\VIEWSHED.dwg

PALOS COLORADOS - MORAGA CALIFORNIA

Richfield Investment

dk CONSULTING
PLANNING · ENGINEERING · CONSTRUCTION
1410 Marsh Drive, Suite 200, Walnut Creek, California 94596 (925) 932-6606 Tel (925) 932-6610 Fax

1999 Settlement Agreement Exhibit 1				VIEW 1.3 Dec. 15, 2006 GDP/VTM by KCA Engineers				VIEW 1.3a April 21, 2008 PDP by DK Consulting			
Lot #	Pad Elev.	Building Ht.	Visible to the Naked Eye	Lot #	Pad Elev.	Building HT.	Visible to the Naked Eye	Lot #	Pad Elev.	Building HT.	Visible to the Naked Eye
15	756.5'	25'									
16	757.5'	25'									
17	758.1'	25'		22	754.0'	25'		16	754.0'	19'	
18	758.3'	25'		23	758.0'	25'		17	758.0'	19'	
19	758.4'	25'		24	758.0'	25'		18	758.0'	19'	
				25	758.0'	25'		19	758.0'	19'	
				26	754.0'	25'		20	754.0'	19'	
				27	752.0'	25'		21	751.5'	19'	
				"E"	748.0'	25'		22	748.0'	19'	
20	758.5'	25'		"F"	752.0'	25'		23	751.7'	19'	
				"G"	756.0'	25'		24	756.0'	19'	
21	774.0'	25'									
22	772.0'	25'		29	774.0'	25'		25	774.0'	19' or 25'	
23	767.0'	25'									
24	762.0'	25'									
25	750.0'	25'									
31	780.0'	35'	✓								
32	780.0'	25'		37	770.0'	25'		33	766.6'	19'	
33	780.0'	35'		38	775.0'	25'		34	770.6'	23'	
62	770.0'	25'		56	773.0'	25'		59	766.5'	19'	
				58	756.0'	35'		60	760.0'	25'	
				83	780.0'	19'		83	768.8	19'	
				85	768.0'	25'		85	766.0'	23'	
				86	762.0'	25'		86	762.2'	23'	
				87	758.0'	25'		87	758.2'	19'	
14	735.0'	35'	✓	106	748.0'	25'	✓	106	748.0'	19'	✓
				107	740.0'	25'	✓	107	737.0'	25'	✓
98	725.0'	35'	✓	108	732.0'	25'		108	726.0'	19'	

VIEW 1
Lafayette BART station platform Viewshed Analysis
July 30, 2008

Richfield Investment Corporation
Digital Imaging Studio

Visual Simulation
Palos Colorados
Moraga, California

dk CONSULTING

July 30, 2008
Job #07-1012-20

Ms. Lori Salamack
Planning Director
Town of Moraga
Planning Department
329 Rheem Blvd.
Moraga, CA 94556

Re: Palos Colorados – Moraga, California
Erection of story poles for lot 106

Dear Ms. Salamack,

This letter shall serve as our professional certification as to the placement, location, and construction of the story poles erected for proposed lot 106 of the Palos Colorados Subdivision in Moraga, California. On May 29, 2008, at the request of Richfield Investment Corporation, dk Consulting erected story poles at the proposed lot 106 as required by Condition of Approval C.GDP.2-R-VTM (COA C.GDP.2-R-VTM). The story poles were erected based on the design shown on the Precise Development Plan (PDP) dated April 21, 2008, as well as the preliminary architectural drawings for Plan 3, elevation C, prepared by Robert Hidey Architects.

The following exhibits assist in describing the manner in which the story poles were erected, along with defining their location.

- Exhibit A – Preliminary plot plan of lot 106 showing Plan 3C and the five points that were surveyed and staked at the site.
- Exhibit B – Story Pole plan 3C exhibit prepared by Robert Hidey Architects, showing the heights from the finish floor (FF) of the roof at the four corners and the front ridgeline.
- Exhibit C – Aerial reference for key map of photographs taken by dk Consulting in Exhibits D through F.
- Exhibits D through F – Photographs of story poles taken by dk Consulting.

The following procedures were used in setting the story poles.

- The exact location of the proposed building for lot 106 was survey located on the site and wooden hubs were set at the four corners and the front ridgeline.
    - Two of the four corners were set using a projection of the faces of the building (points #648 and #649).
- The existing ground elevation was determined at all five points.
- Using the proposed pad elevation of 748.0 shown on the PDP and grading plans, the finish floor of the building was set at 749.0 (748.0 + 12" foundation section).
- Per the Story Pole Exhibit for Plan 3C by Robert Hidey Architects, the front and rear corners of the building's roof were set 11.0 feet higher than the finish floor elevation, or at elevation 760.0. 11.0 feet was used as a conservative height as some corners were slightly lower in height.

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- The highest point of the building is 19.0 feet above the finish floor, therefore the top of the story pole was set at elevation 768.0. This point corresponds to the ridgeline of the roof at the entrance to the house.
- The existing ground elevations at these five locations were compared to the roof elevations calculated above. 2"x4" lumber was then screwed together to the five different heights at each of the points surveyed above. See elevation table below.
- A rope was tied to the top end of the 2x4 poles and orange flagging was tied to the rope. The top 2' to 3' of each pole was painted orange for easier recognition.
- The poles were then stood upright and the base of each pole was located at the wooden hubs (proposed building corners). Diagonal 2x4 bracing was screwed to the poles at the base for support.
- Photographs were taken at the site, with the survey vehicle shown for height reference.
- The timing of the story pole erection was coordinated with Digital Imaging Studios, who was able to take photographs from the Lafayette BART station platform.
- As requested by the landowner and the cattle rancher, the story poles were then dismantled for the protection of the cattle that graze within the project site.

The following table identifies the points used and their corresponding elevations.

Point No.	Ex. Ground elevation	Finish Floor elevation	Top of Plate/Ridge Elevation
646	733.37	749.0	760.0
647	735.73	749.0	768.0 (ridge)
648	740.52	749.0	760.0
649	749.85	749.0	760.0
650	741.84	749.0	760.0

Please call me if you have any questions or need additional information.

Sincerely,
dk Consulting

David L. Francke, P.E.
Senior Engineer
RCE 49068

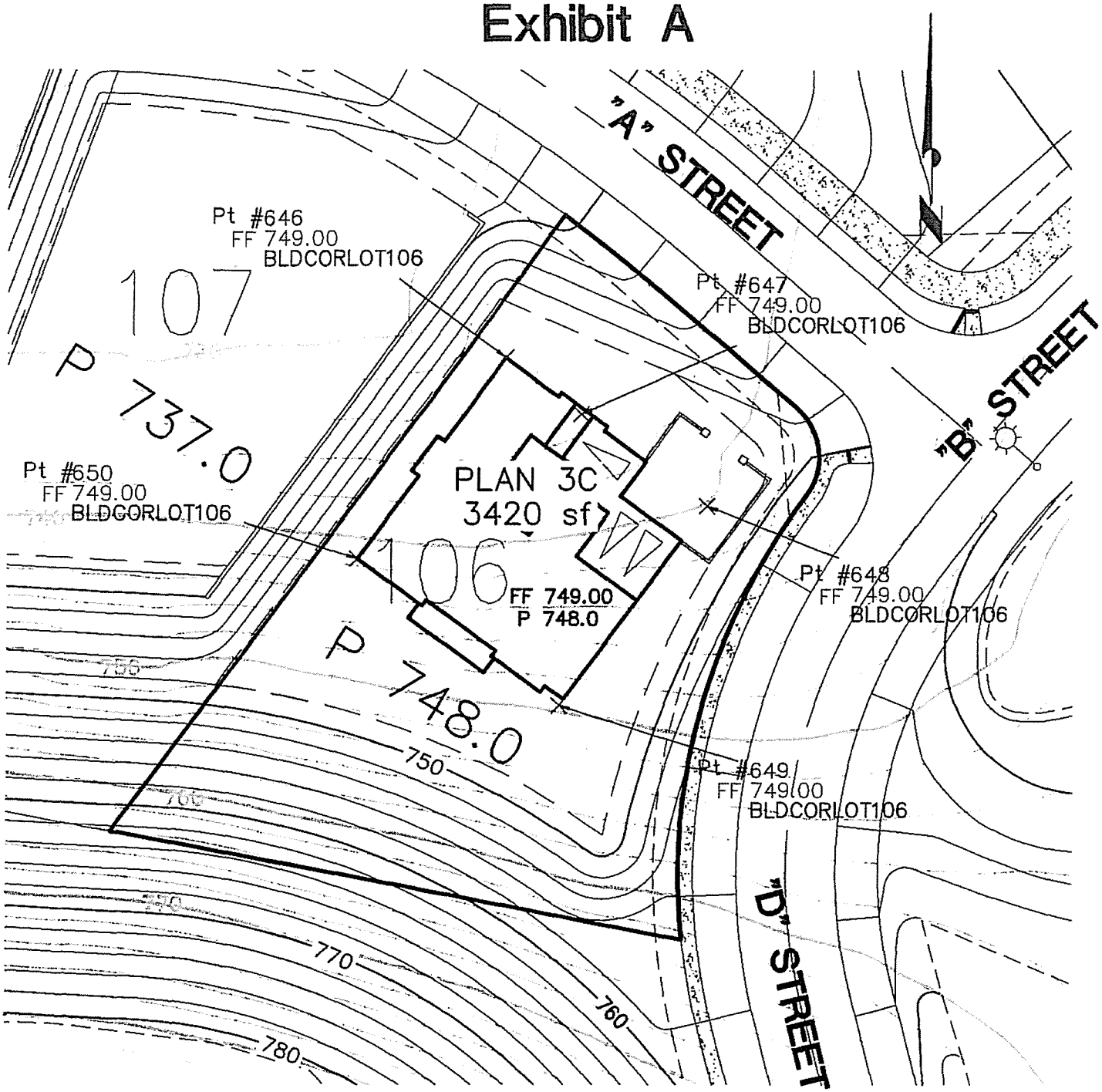
Reviewed by
dk Consulting

Dan Drummond, L.S.
Sr. Land Surveyor
LS 6333

cc: Debi Chung - Richfield Investment Corporation
Grace Chen – Richfield Investment Corporation
Rick Sabella - Richfield Investment Corporation
Alicia Guerra – Cox Castle Nicholson
Niroop Srivatsa - City of Lafayette Planning/Building Services Manager
File

1440 Maria Lane, Suite 200, Walnut Creek, CA 94596 / Tel: (925) 932-6868 / Fax: (925) 932-0910 / www.dkconsultinginc.com

Exhibit A



P=PAD ELEVATION
FF=FINISH FLOOR ELEVATION

LOT AREA: 22,141 SF	SCALE: 1"=40'	RICHFIELD INVESTMENT CORPORATION
DATE: JULY 30, 2008	JOB NO. 07-1012-20	

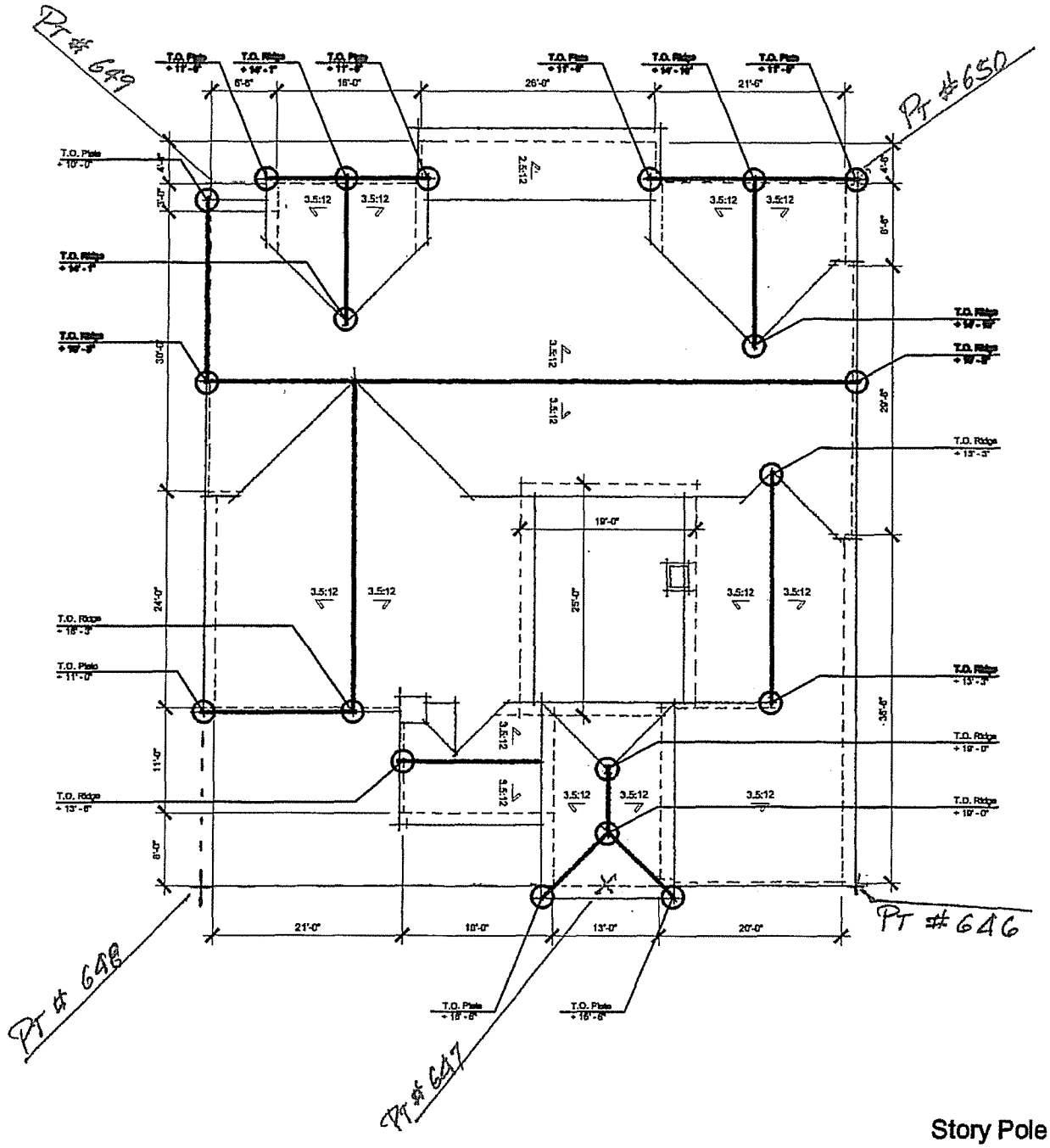
CONSULTING
PLANNING · ENGINEERING · CONSTRUCTION
1440 Maria Lane, Suite 200, Walnut Creek, California 94596 (925) 932-6868 Tel. (925) 932-0910 Fax

TRACT 8378
PALOS COLORADOS
MORAGA CA.

LOT 106

ot106 storypole.DWG

Exhibit B



Story Pole Plan 3C

Scale $\frac{3}{16}$" = 1'

Robert Hidey **Architects**

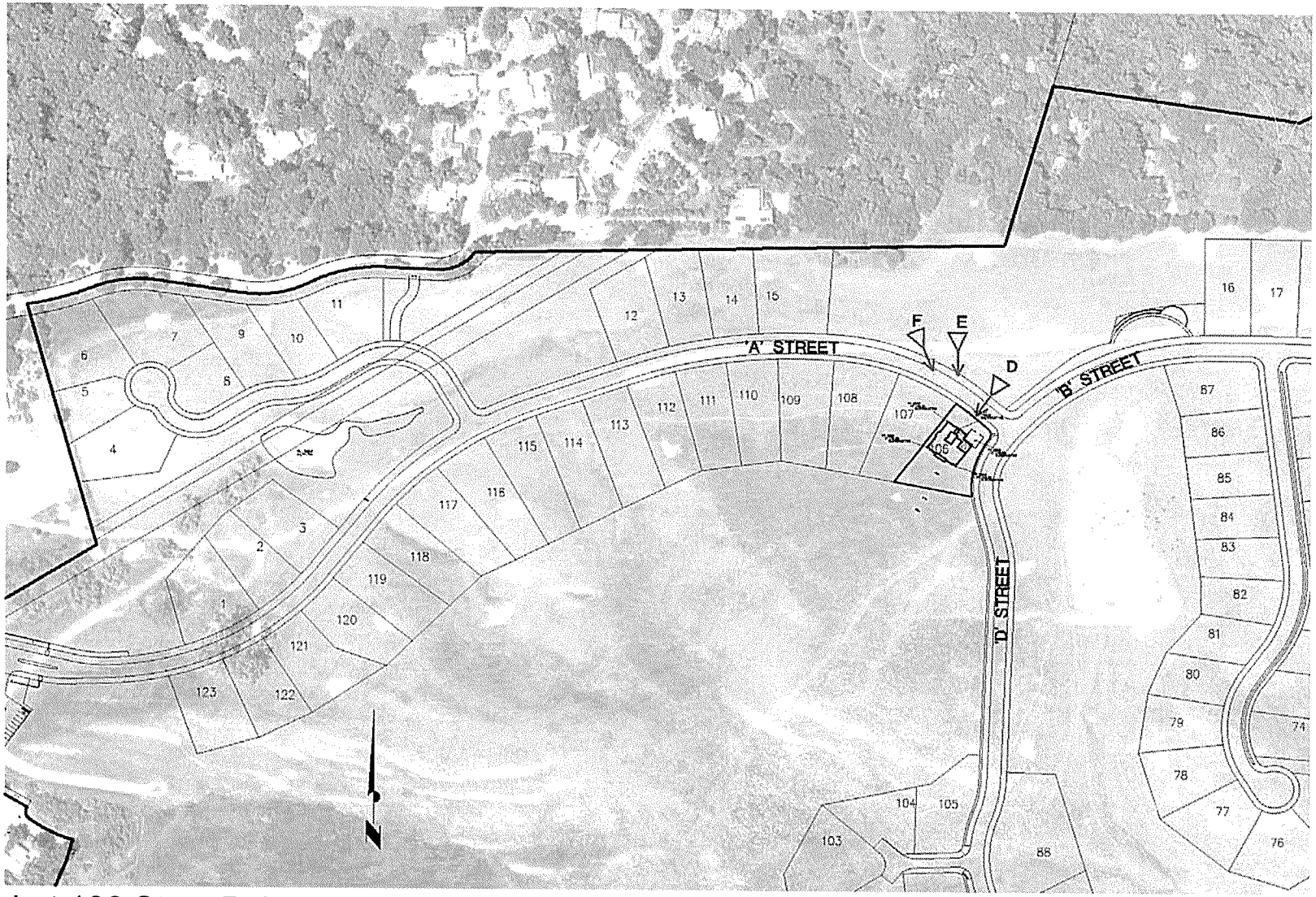
Palos Colorados

Richfield Investment Corporation

Moraga, Ca

Project Number: 07035.00 7/22/08

F:\Projects\2007\071012\files\Story Pole Cert.doc

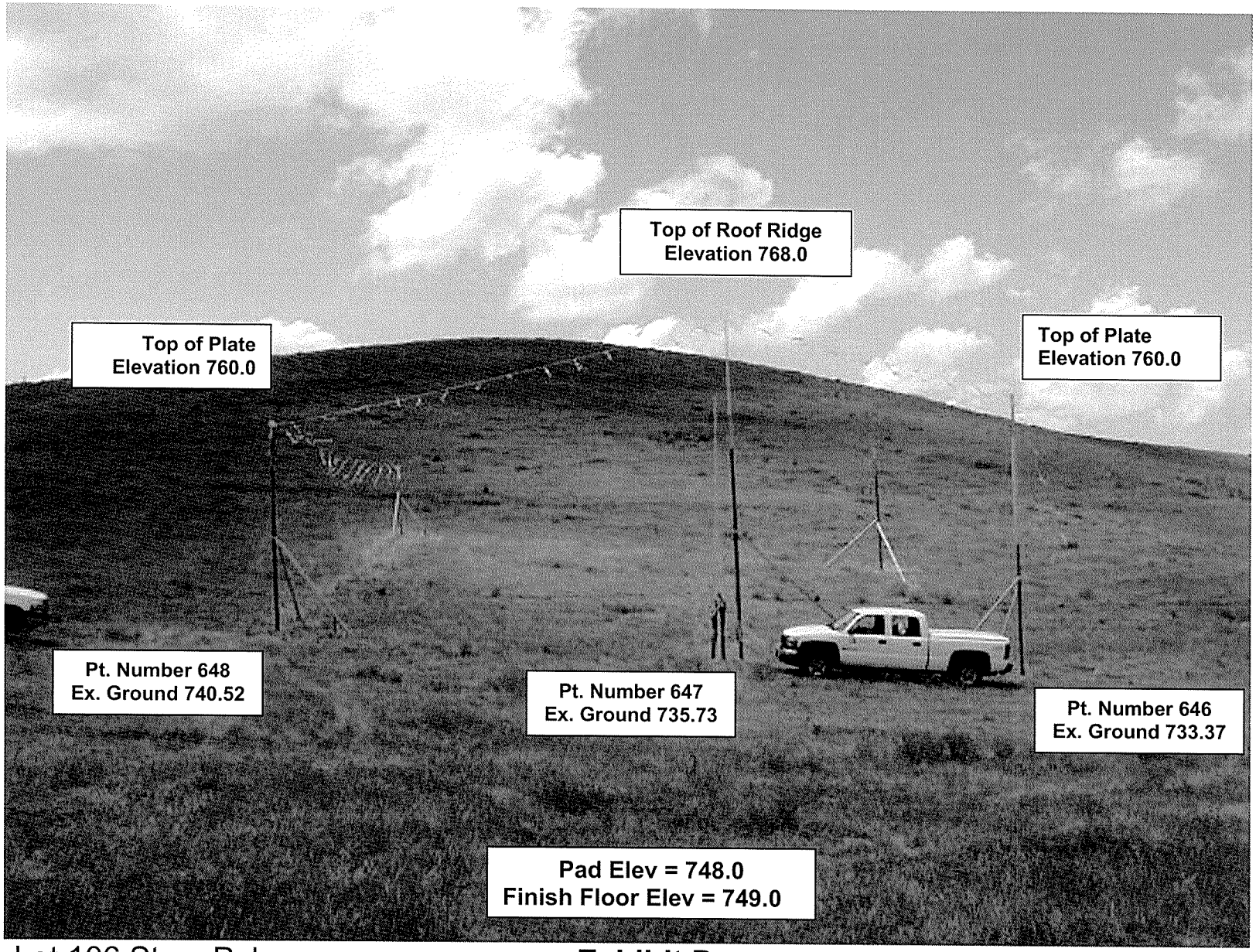


Lot 106 Story Pole

Exhibit C

Palos Colorados

Key Map for Photos taken by dk Consulting
as shown in Exhibits D through F



Lot 106 Story Pole
(Photo taken 5/29/08)

Exhibit D

Palos Colorados

F:\Projects\2007\071012\files\Story Pole Cert.doc

Lot 106 Story Pole
(Photo taken 5/29/08)

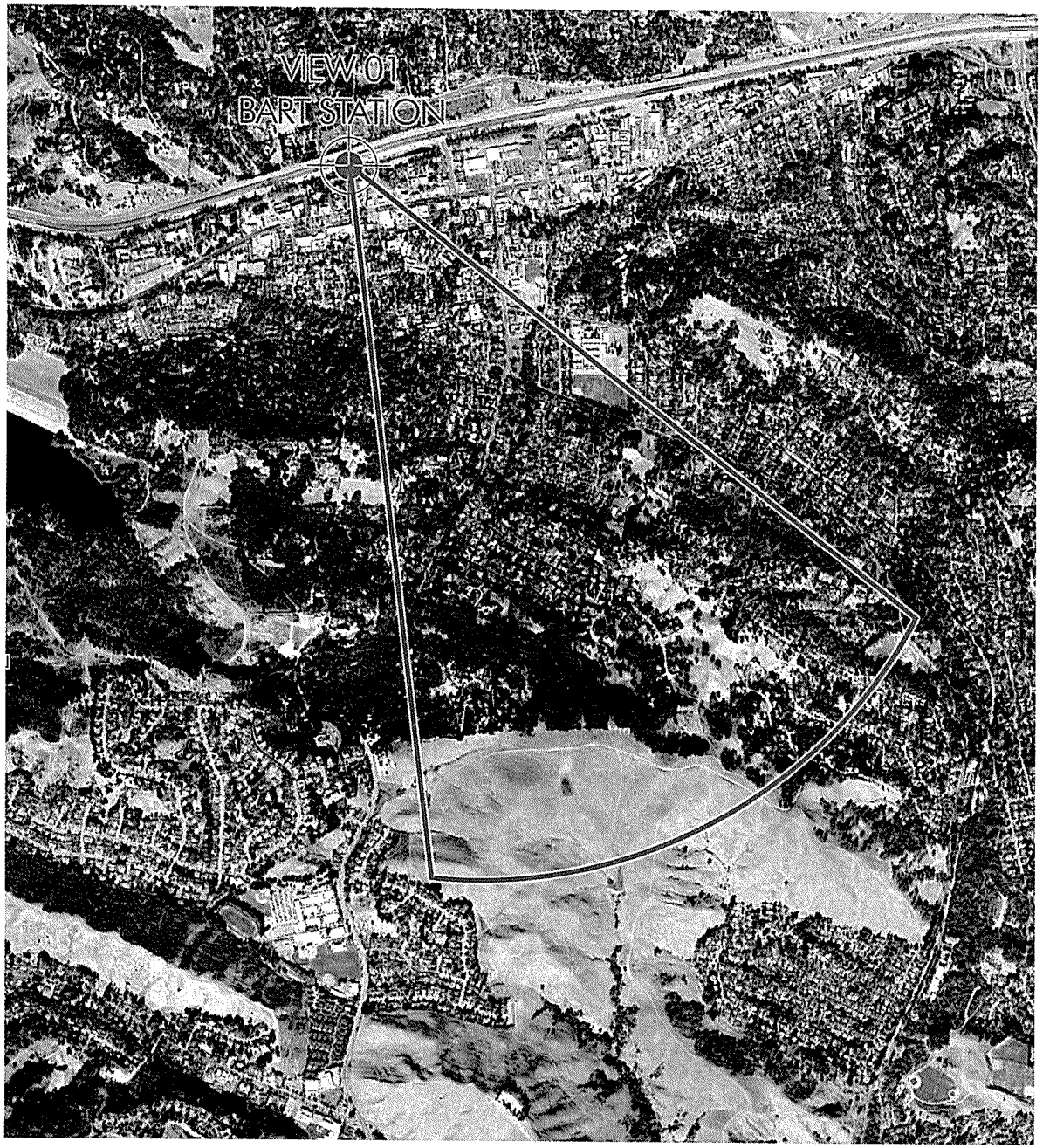
Exhibit E

Palos Colorados

Lot 106 Story Pole
(Photo taken 5/29/08)

Exhibit F

Palos Colorados



VIEW 1.1
Aerial View Legend
December 15th, 2006

Richfield Investment Corporation
Dahlin Group Architecture Planning

Visual Simulation
Palos Colorados
Moraga, California

VIEW 1.2

Photograph of existing conditions from the
Lafayette BART station platform
December 15th, 2006

Richfield Investment Corporation

Dahlin Group Architecture Planning

Visual Simulation

Palos Colorados
Moraga, California

VIEW 1.3

Visual simulation of the 12/15/06 GDP

December 15th, 2006

Richfield Investment Corporation

Dahlin Group Architecture Planning

Visual Simulation

Palos Colorados

Moraga, California

VIEW 1.5

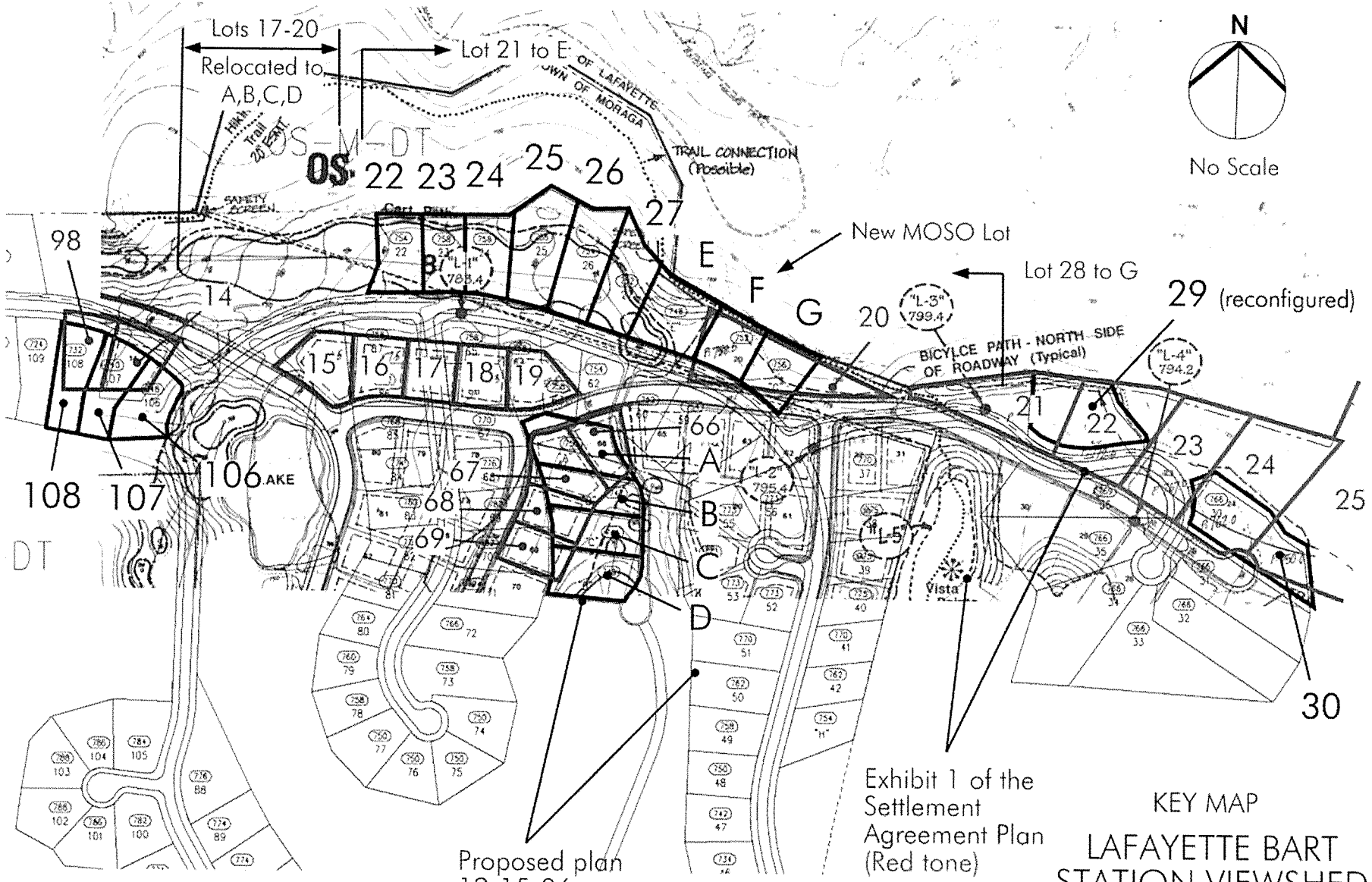
Visual simulation of the
Settlement Agreement Exhibit 1
December 15th, 2006

Richfield Investment Corporation

Dahlin Group Architecture Planning

Visual Simulation

Palos Colorados
Moraga, California



KEY MAP

LAFAYETTE BART STATION VIEWSHED MITIGATION

PALOS COLORADOS
MORAGA, CA

SHEET 1 OF 1

NOTE

- Total lot count remains at 123
- Total MOSO lot count has been increased from 16 to 17

KCA

KCA ENGINEERS 5330 12-15-06

Y:\...\5330\Reviews\Story Poles\Key Map-N (12-15-06).vsd

VIEW 1 - LAFAYETTE BART STATION							
1999 Settlement Agreement Exhibit 1				Dec. 15, 2006 GDP by KCA Engineers			
Lot #	Pad Elev.	Building Ht.	Visible to the Naked Eye	Lot #	Pad Elev.	Building HT.	Visible to the Naked Eye
15	756.5'	25'					
16	757.5'	25'					
17	758.1'	25'		22	754.0'	25'	
18	758.3'	25'		23	758.0'	25'	
19	758.4'	25'		24	758.0'	25'	
				25	758.0'	25'	
				26	754.0'	25'	
				27	752.0'	25'	
				"E"	748.0'	25'	
20	758.5'	25'		"F"	752.0'	25'	
				"G"	756.0'	25'	
21	774.0'	25'					
22	772.0'	25'		29	774.0'	25'	
23	767.0'	25'					
24	762.0'	25'					
25	750.0'	25'					
31	780.0'	35'	✓				
32	780.0'	25'		37	770.0'	25'	
33	780.0'	35'		38	775.0'	25'	
62	770.0'	25'		56	773.0'	25'	
				58	756.0'	35'	
				85	768.0'	25'	
				86	762.0'	25'	
				87	758.0'	25'	
14	735.0'	35'	✓	106	748.0'	25'	✓
				107	740.0'	25'	✓
98	725.0'	35'	✓	108	732.0'	25'	